

Amendments to the Specification:

Please replace the paragraph of page 1, lines 21-32 to page 2, lines 1-3 with the following amended paragraph:

In general, mobile communication systems provide voice service as a basic service and data service as an additional service. Current users of mobile communication systems demand transmission of more data at higher rates from the mobile communication systems. To meet the users' demand, 1xEV-DO has emerged to support high-speed packet data transmission. Like general mobile communication systems, the 1xEV-DO system transmits/receives data to/from mobile stations (MSs) via radio channels. Therefore, a BTS assigns radio resources to the MSs in order to provide service to them. Communications are available through assignment of communication resources, i.e., radio channel resources. This is the most conspicuous difference between mobile communication and wired communication. For wired communication systems, a dedicated line is connected to each terminal irrespective of whether the terminal uses the line. In contrast, ~~On the contrary~~, in wireless communication systems, communication service is possible only when channel resources are assigned to the mobile terminals in a radio environment. Consequently, if all radio resources are occupied, a new call cannot be connected, and the data rate of a presently on-going call cannot be increased either.

Please replace the paragraph of page 3, lines 8-19 with the following amended paragraph:

As illustrated, the 1xEV-DO system operates separately in the non-silence period and the silence period. They can be set to alternate periodically according to a time interval set by the system. Alternatively, the silence period can be set to a preset time period. The silence period lasts for a predetermined short time (T). For the silence period, no MSs transmit signals on the reverse link. This implies that there is no power loaded on the reverse link. Even in this state, thermal noise power exists due to radio noise inherent to the environment

according to the position of a BS. The power of the silence period illustrated in FIG. 1 corresponds to thermal noise power. An effective load power, as well the thermal noise power, exists for the non-silence period because of power transmitted from the MSs. The effective load power is the load imposed on the reverse link by data transmission from the MSs. This can also be referred to as the rise over thermal (ROT) power illustrated in ~~illustrated in~~ FIG. 1.

Please replace the paragraph of page 5, lines 21-32 with the following amended paragraph:

In an actual 1xEV-DO system, there is no power artificially loaded on the reverse link for the silence period, as described before with reference to FIG. 1. The reason for setting the silence period is to ~~measuring~~ precisely measure the thermal noise power and to appropriately control the data rate of the reverse link based on the measurement. When the average calculator 302 is implemented as an integrator however, it cannot follow rapid power changes, such as the square wave illustrated in FIG. 1. If a power signal is presented in the form of a square wave, the integrator will output power values that reflect a parabola as indicated by the bold line shown in FIG. 4. Therefore, a power measurement error is generated, as illustrated in FIG. 4. This error varies with the time constant of the average calculator 302. If the time constant is greater than 26.67 ms, 55.33 ms, or 80 ms, which are the duration's of a silence period as provided in the 1xEV-DO system, the thermal noise power cannot be measured accurately.